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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/003,925

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William J. Taylor

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10/21/2003

MEDTRONIC, INC.

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EXAMINER

LAYNO, CARL HERNANDZ

ART UNIT

PAPER NUMBER

3762

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,925

Applicant(s)

TAYLOR ET AL.

Examiner

Carl H. Layno

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgment is made of applicant's Information Disclosure Statements (PTO-1449s) which were received by the Office on February 8, 2002 and on September 5, 2002. These documents have been made of record in the file as Paper Nos.3 and 6, respectively.

Drawings

2. Applicant's formal drawings were received by the Office on March 22, 2002 and have been made of record in the file as Paper No.4. These drawings have been objected to by the Draftsperson. See the Draftsperson's comments in the attached PTO-948.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 3, 6-9, and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Spillman '350-A1.

The Spillman '350-A1 patent publication describes a glass to metal seal feature (Figs.3B) used in hermetically sealing an electrochemical cell **10** (Figs.1-5 -- paragraphs [0002] and [0019]) wherein the construction details set forth by the applicant in claim 1, namely a terminal, insulating member, and sleeve member, are identified as prior art. See Fig.3A. Fig.3A shows the details of a terminal **22**, an insulating member **56**, and a sleeve member **64**.

In regard to claim 3, in a preferred embodiment (Fig.3B), insulating member **56,70** is identified as being TA-23 Hermetic sealing glass (p.4, paragraph [0043], line 13).

In regard to claim 7, the terminal conducts electrical current from a battery to external devices.

In regard to claims 8 and 9, the sleeve **68** is made of material suitable for welding (p.2, paragraph [0026], lines 3-4) as is the case **12** and lid **16** (p.2, paragraph [0024], lines 1-5). See also p.1, paragraph [0010], lines 10-13. This material may be stainless steel (p.2, paragraph [0024], line 7 and paragraph [0026], line 5).

In regards to claims 12 and 13, the electrochemical cell can be a lithium ion battery (p.3, paragraphs [0028-0029]. See also p.5, paragraph [0045].

In regard to claims 14 and 15, applicant's attention is directed to p.1, paragraph [0002], lines 11-15, which states that the device may be used in terminal pin assemblies found with the

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battery cells of medical devices such as pacemakers, cardioverter defibrillators, drug pumps, heart assist devices, and neruostimulators.

5. Claims 1, 3-11, 13, 14, 16, 18-25, 27, 29, 30, 32, 33, 35, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Frysz et al '716-A1.

The Frysz et al '716-A1 patent publication describes a series of reverse mismatched compression glass-to-metal seals (Figs. 1-2) used in an electrochemical cell (paragraph 0003]) whose details read upon applicant's claimed features. Specifically, applicant's attention is directed to Fig. 1 of Frysz et al which shows applicant's claimed configuration of a terminal **18**, surrounded by a glass insulating member **16**, and steel ferrule **14** and casing **12**. Applicant's attention is directed to Tables 1 and 2 which recite that the ferrule and casing are constructed of the same stainless steel material (304L stainless) and may be constructed with either Cabal-12 or TA-23 insulating glass. Though the embodiments of Tables 1 and 2 show that the terminal lead is constructed of 446 SS stainless steel, the pins may alternatively, be constructed of a titanium alloy (Grades 1-5 or 9), as shown in Tables 3-5.

In regard to claims 5 and 20, the make-up of Frysz et al's Cabal-12 insulating glass would inherently read upon applicant's claimed composition.

In regard to claim 8 and 21, applicant's attention is directed to page 1, paragraph [0012], lines 12-15.

In regard to claims 11, 14, 24, and 27, see p.1, paragraph [0003], lines 7-8 and p.2, paragraph [0019], lines 15-17.

In regard to claims 13, 25, 32, and 36, the electrochemical cell performs the function of a battery since it is used to power an implantable medical device (p. 1, paragraph [0003], lines 7-8).

Claim Rejections - 35 USC § 103

6. Claims 2, 17, 31, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frysz et al '716-A1 in view of Kyle '207.

Although the Frysz et al '716-A1 teaches the use of a terminal pin constructed of a titanium alloy (Tables 3-5), it does not specifically state the composition of this alloy.

The Kyle '207 patent describes a feedthrough terminal pin assembly for use in a pacemaker in a configuration similar to that described by the applicant. Kyle specifies that parts of the assembly are constructed of the titanium alloy Ti6Al4V – 6% aluminum, 4% vanadium, and 90% titanium. See col.3, lines 13-17.

Lacking any criticality, to have substituted one titanium alloy for another in the construction of the Frysz et al terminal pin would have been an obvious, if not arbitrary, selection of construction materials to one of ordinary skill in the art, particularly in view of this alloys increased mechanical strength over pure titanium (col.3, lines 14-18 of Kyle '207).

7. Claims 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frysz et al '716-A1 in view of Spillman '350-A1.

Although the Frysz et al '716-A1 patent describes a feedthrough assembly for use in electrochemical cells and implantable devices, it fails to specify what battery and implantable medical devices are affected.

Spillman '350-A1, unlike Frysz et al, has specified that it may be used in lithium batteries and implantable medical devices such as pacemakers, cardioverter defibrillators, and neurostimulators.

To have specified the use of the Frysz et al feedthrough assembly for use in batteries of the type described by Spillman '350-A1 and in implantable devices such as pacemakers, cardioverter defibrillators, and neurostimulators, would have been an obvious matter of design choice to one of ordinary skill in view of similar device's well known applications, as exemplified by Spillman '350-A1.

Allowable Subject Matter

8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl H. Layno whose telephone number is (703) 308-3694. The examiner can normally be reached on Monday thru Thursday from 9 AM to 6 PM and every other Friday between 9AM and 5PM. A voice mail or E-mail message (carl.layno@uspto.gov) may be left if desired.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes, can be reached on (703) 308-5181. The current fax number for this Group is (703) 305-3590. For after final actions, use (703) 872-9303.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Legal Instruments Examiner (LIE) Brenda Webb whose telephone number is (703) 305-7520.

Carl H. Layno

CARL LAYNO
PRIMARY EXAMINER

CHL
10/16/03